



TNEMEC EPOXY SERIES 1220

PRODUCT PROFILE

GENERIC DESCRIPTION Inorganic Hybrid Water-Based Epoxy

COMMON USAGE A unique, low odor, low VOC, water-based epoxy coating featuring HydroLink curing technology for exceptional durability and protection of concrete surfaces in immersion service. Easy to apply and solvent-free, Series 1220 is an excellent choice for coating concrete tanks, reservoirs, and basins. Formula protected under U.S. patent.

COLORS 1255 Beige, 00WH Tnemec White, 15BL Tank White. **Note:** This coating can exhibit color change when subjected to sunlight. If this coating is being used as a finish coat, and exposed to UV light in exterior exposure, caution should be taken when selecting colors. Contact your Tnemec representative for more information.

FINISH Satin

SPECIAL QUALIFICATIONS Certified by **NSF International** in accordance with **NSF/ANSI Std. 61**. Series 1220 is qualified for use on tanks and reservoirs 200 gallons (757 L) capacity or greater. Reference the "Search Listings" section of the NSF website at www.nsf.org for details on the maximum allowable DFT, cure time and temperature.

PERFORMANCE CRITERIA Contact your Tnemec representative for specific test results.

COATING SYSTEM

SURFACER/FILLER/PATCHER 215, 217, 218

PRIMERS Self-priming

TOPCOATS Series 20HS, 22, FC20HS, FC22, 30, 66HS, 113, 114, 156, 157, 158, 161HS, 180, 181, 406, 1026, 1028, 1029. **Note:** More than one finish coat may be required to achieve uniform and desired gloss level.

SURFACE PREPARATION

CONCRETE Allow new concrete to cure 28 days. For optimum results and/or immersion service, abrasive blast referencing SSPC-SP13/NACE 6, ICR CSP 2-4 Surface Preparation of Concrete and Tnemec's Surface Preparation and Application Guide. Fill all holes, pits, voids and cracks with 215, 217 or 218. For surfaces in need of extensive patching or resurfacing, reference the appropriate surfacer, filler, or patcher product data sheet for surface preparation requirements.

PAINTED SURFACES **Non-Immersion Service:** Ask your Tnemec representative for specific recommendations.

ALL SURFACES Must be clean, dry and free of oil, grease and other contaminants.

TECHNICAL DATA

VOLUME SOLIDS 100% (mixed) †

RECOMMENDED DFT 6.0 to 10.0 mils (152 to 250 microns) per coat. **Note:** Number of coats and thickness requirements will vary with substrate, application method and exposure. Contact your Tnemec representative.

CURING TIME

Temperature	To Touch	To Recoat	Immersion
120°F (49°C)	15 minutes	2 hours	7 days
95°F (35°C)	30 minutes	3 hours	7 days
75°F (24°C)	1 hour	8 hours	7 days
55°F (13°C)	2 hours	16 hours	14 days
45°F (7°C)	3 hours	24 hours	21 days
35°F (2°C)	4 hours	4 days	28 days

Curing time varies with surface temperature, air movement, humidity and film thickness. **Note:** For faster cure in temperatures down to 35°F (2°C), add No. 44-700 Epoxy Accelerator, see separate product data sheet for cure information. **Note:** The use of Series 44-700 Accelerator is not recommended when temperatures exceed 75°F (24°C).

VOLATILE ORGANIC COMPOUNDS

0.01 lbs/gallon (0.9 grams/litre) †

HAPS

0 lbs/gal solids

THEORETICAL COVERAGE

1,604 mil sq ft/gal (39.4 m²/L at 25 microns). See APPLICATION for coverage rates. †

NUMBER OF COMPONENTS

Two: Part A and Part B (One Part A to One Part B by volume.)

PACKAGING

KITS CONSIST OF:

	PART A	PART B	Yield (mixed)
Medium Kit	2 gal pail	6 gal pail (partial fill)	4 gallons (15.1L)
Small Kit	1 gallon can	3 gallon can (partial fill)	2 gallons (7.56L)

NET WEIGHT PER GALLON

14.25 ± 0.25 lbs (6.46 ± .11 kg) (mixed) †

STORAGE TEMPERATURE

Minimum 40°F (4°C) Maximum 90°F (32°C)

TEMPERATURE RESISTANCE

(Dry) Continuous 250°F (121°C) Intermittent 275°F (135°C)

SHELF LIFE

Part A: 12 months; Part B: 9 months at recommended storage temperature.

FLASH POINT - SETA

Part A: 147°F (64°C) Part B: >212°F (100°C)

HEALTH & SAFETY

Paint products contain chemical ingredients which are considered hazardous. Read container label warning and Safety Data Sheet for important health and safety information prior to the use of this product.
Keep out of the reach of children.

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APPLICATION

COVERAGE RATES

Unthinned

	Dry Mils (Microns)	Wet Mils (Microns)	Sq Ft/Gal (m ² /Gal)
Minimum	6.0 (150)	6.0 (150)	267 (24.8)
Maximum	10.0 (250)	10.0 (250)	160 (14.9)

Thinned 20%

	Dry Mils (Microns)	Wet Mils (Microns)	Sq Ft/Gal (m ² /Gal)
Minimum	6.0 (150)	7.0 (175)	222 (20.6)
Maximum	10.0 (250)	12.0 (304)	160 (14.9)

Note: Roller or brush application may require two or more coats to obtain recommended film thickness. Allow for overspray and surface irregularities. Wet film thickness is rounded to the nearest 0.5 mil or 5 microns. Application of coating below minimum or above maximum recommended dry film thicknesses may adversely affect coating performance.

MIXING

Power mix the contents of the container marked Part B, making sure no pigment remains on the bottom. Add the contents of the can marked Part A to Part B while under mechanical agitation. During mixing, scrape the container wall to aid in complete blending of the two components. Continue agitation for a minimum of two minutes until the two components are thoroughly mixed. If using Series 44-700 accelerator, slowly add one (1) ounce of 44-700 per mixed gallon of Series 1220 while under agitation. **Note:** The use of more than the recommended amount of 44-700 will adversely affect performance.

Thin by volume and thoroughly mix. Failure to thoroughly mix the Part A and Part B components prior to thinning can affect product's gloss and performance. Do not use mixed material beyond pot life limits. A clean mixing blade devoid of paint buildup is needed after each kit to ensure proper mixing of components. For optimum application properties, the material temperature should be between 70°F and 85°F (21°C and 29°C).

THINNING

For spray, brush or roller application thin 15% to 20% per gallon with clean tap water. **Caution: Thinning with high temperature water will significantly reduce the pot life. For best results, water temperature should not exceed 80°F (27°C).**

POT LIFE

Without 44-700: 2 1/2 hours at 75°F (24°C) thinned 15% with water 1 hour at 90°F (32°C) thinned 20% with water

With 44-700: 2 hours at 40°F (4°C) thinned 15% with water 1 1/2 hours at 60°F (15°C) thinned 15% with water
45 minutes at 75°F (24°C) thinned 15% with water

Note: The use of Series 44-700 Accelerator is not recommended when temperatures exceed 75°F (24°C).

SPRAY LIFE

Without 44-700: 2 1/2 hours at 75°F (24°C) thinned 15% with water 3 1/2 hours at 75°F (24°C) thinned 20% with water
45 minutes at 90°F (32°C) thinned 20% with water

With 44-700: 1 1/2 hours at 40°F (4°C) thinned 15% with water 45 minutes at 75°F (24°C) thinned 15% with water

APPLICATION

Air Spray

Gun	Fluid Tip	Air Cap	Air Hose ID	Mat'l Hose ID	Atomizing Pressure	Pot Pressure
DeVilbiss JGA	E	765 or 704	5/16" or 3/8" (7.9 or 9.5 mm)	3/8" or 1/2" (9.5 or 12.7 mm)	50-70 psi (3.4-4.8 bar)	10-20 psi (0.7-1.4 bar)

Low temperatures or longer hoses require higher pot pressure. Do not allow material to remain in hose.

Airless Spray

Tip Orifice	Atomizing Pressure	Mat'l Hose ID	Manifold Filter
0.017"-0.021" (430-535 microns)	3700-5000 psi (255-345 bar)	1/4" or 3/8" (6.4 or 9.5 mm)	60 mesh (250 microns)

Use appropriate tip/atomizing pressure for equipment, applicator technique and weather conditions.

Roller: Use 3/8" or 1/2" (9.5 mm to 12.7 mm) synthetic woven nap covers.

Brush: Recommended for small areas only. Use high quality natural or synthetic bristle brushes.

SURFACE TEMPERATURE

Minimum 35°F (2°C), optimum 65°F to 80°F (18°C to 27°C), maximum of 120°F (49°C). The substrate temperature should be at least 5°F (3°C) above the dew point. Coating will not cure below minimum surface temperature. Cure time necessary to resist direct contact with atmospheric moisture at surface temperature:

Temperature	To Resist Moisture
120°F (49°C)	5 hours
95°F (35°C)	6 hours
75°F (24°C)	7 hours
55°F (13°C)	20 hours
45°F (7°C)	36 hours
35°F (2°C)	4 days

MATERIAL TEMPERATURE

For optimum application and handling, the material temperature during application should be between 70°F and 85°F (21°C and 29°C). Temperature will affect the workability. Cool temperatures increase viscosity and decrease workability. Warm temperatures will decrease viscosity and shorten pot life.

CLEANUP

Flush and clean all equipment immediately after use with water, followed by a final flush with MEK or Methyl Acetate.
† Values may vary with color.

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